

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/12202**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).
- (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
- ☒ claims Nos. 16, 29
- because:
- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 16, 29 are so unclear that no meaningful opinion could be formed (*specify*):
- see separate sheet**
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the said claims Nos.
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the Standard.
- ☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15, 17-28, 30
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15, 17-28, 30
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15, 17-28, 30
	No: Claims	

2. Citations and explanations

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see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/12202

Reference is made to the following documents.

- D1: WO 02/103972 A (ERICSSON) 27 December 2002**
- D2: WO 02/43271 A (ERICSSON) 30 May 2002**
- D3: WO 02/082711 A (ERICSSON) 17 October 2002**

D1 is mentioned in connection with Rules 70.10 and 64.3 PCT. It was filed on 17th June 2002, and claimed priority date of 19th June 2001.

Re Item III

Claims 16 and 29 are unclear in such a way that it is impossible to distinguish their subject matter from that of the prior art. The final paragraphs of these two claims are so obscure, that it is impossible to discern the subject matter for which protection is sought.

Re Item V

D2 and D3 disclose a hypothesis testing procedure for joint channel estimation and synchronisation. However, neither of these documents discloses the combination of such a procedure in combination with the size of the equaliser window. It follows that the subject matter of independent claims 1 and 14 is novel, as is that of those claims which depend on these. The effect of setting the window size is to include all significant effects of the channel in the estimation, while simultaneously excluding irrelevant coefficients which would only contribute noise. The problem can, therefore, be taken as reducing noise while providing effective equalisation. There is nothing in D2 or D3, or in the general knowledge of the skilled person, which would lead to the solution of this problem by setting the size of the equaliser window. It follows that the subject matter of claim 1 and 14, together with that of their dependent claims, involves an inventive step.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/2202**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-33 as originally filed

Claims, Numbers

1-30 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/534916

Rec'd PCT/PTO 10 MAY 2005

Applicant's or agent's file reference P20200482 WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/12202	International filing date (day/month/year) 31.10.2003	Priority date (day/month/year) 20.11.2002
International Patent Classification (IPC) or both national classification and IPC H04L25/02		
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) et al.		


- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 08.05.2004	Date of completion of this report 06.10.2004
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